

Bulk Contact Mask Process

Abstract

In vertical transistor trench DRAM arrays, the problem of pinching off the transistor bodies in the P-well is addressed by etching a set of trenches between the DRAM cell trenches down to a level below the buried straps, thus blocking the depletion regions from the buried straps from meeting. The trench structure contains conductive material that forms a conductive path from the bodies of the vertical transistors to the lower portion of the P-well.